

### Monitoring Sources

#### **BRIX VERIFIERS AND THIRD-PARTY DEVICES**

The Brix Verifier family, comprised of a full array of highly scalable appliances and extensible software agents, offers maximum deployment flexibility and supports any combination of IP services (voice, video, data), network infrastructures and network performance tests. By installing Brix Verifiers in MPLS core networks, data centers, PoPs, peering points, and directly at customer sites, network operators can manageably segment their networks to more easily localize problems and identify root causes of service performance and quality issues.

1. Brix 100 Series Verifier—Installed at customer locations to create a customer premises-service provider demarcation
2. Brix 1000 Series Verifier—Deployed at the network edge (metro hubs, regional head-ends, PoPs and data centers)
3. Brix 2000 Series Verifier—Designed for deployment in high-speed locations, such as MPLS core networks, peering points, large metro PoPs and national head-ends
4. Brix 3500T Verifier—Installed on the public switched telephone network (PSTN) portion of a service provider's network
5. Brix 4100 Series Verifier—Deployed throughout service providers' networks to monitor live voice and video services

#### **Open Architecture for a Customizable Solution**

In addition to Brix Verifiers and software agents, the open architecture of the Brix System enables it to support a wide range of in-network monitoring sources by leveraging connectors and industry standards. With the Brix System, users can employ the right performance and quality monitoring approach for their environments: EXFO monitoring solutions exclusively, third-party devices, or a combination of both.

The use of in-network monitoring devices provides a scalable way to extend and deploy the Brix System throughout the network while protecting investments in existing network infrastructures and end-user equipment. EXFO provides either a connector for each supported in-network monitoring source, or collects performance and quality metrics from these elements via industry standards.

The Brix System currently supports the following third-party devices:

- Cisco IOS IP SLA

- Linksys analog terminal adapters (ATAs)
- Motorola embedded multimedia terminal adapters (eMTAs)
- Texas Instruments PIQUA real-time, IP quality management system
- IETF RFC 2925-compliant network elements (such as equipment from Extreme Networks, Juniper Networks and 3Com)

Industry standards, such as RFC 2925, RTCP, RTCP-XR, SIP Media Loopback, NCS Media Loopback, TR-069, Two-Way Active Measurement Protocol (TWAMP) and others, are playing an integral role in delivering greater visibility into the performance and quality of networks and converged voice, video and data services. From defining metrics to the introduction of new protocols, EXFO Service Assurance is enabling the deployment of pervasive and comprehensive performance management platforms by taking advantage of current native network protocols, standards-based extensions to current protocols, and definition of new protocols.

### Endpoint Monitoring

By leveraging devices that support industry standards, or include embedded software agents, the Brix System is able to harvest intelligence from these network elements and endpoint devices to gain a comprehensive performance and quality view of revenue-generating services and the networks they rely on. By performing active (on-demand) testing and passive (live) service assurance monitoring to enterprise or residential customer premises equipment, the Brix System enables providers to guarantee that SLAs and QoE expectations are continually met for all converged service offerings.

### Brix 3000 Verifier



In-network service assurance verifier  
Measures real-time performance of IP and Ethernet services  
Delivers end-to-end service assurance testing  
Offers worldwide time synchronization options  
Features carrier-class design and NEBS Level 3 certification

Provides operational simplicity for “lights-out” management  
Supports network-to-application layer testing

### **Brix 100M Verifier**



Service assurance device designed for customer premises deployments  
Provides end-to-end IP service visibility  
Features exceptionally accurate timing capability  
Includes auto-provisioning capabilities for zero truck-roll deployments  
Allows secure, remote operation and management  
Supports network-to-application layer testing

### **Brix 1000 Verifier**



Platform 15454T-32 for monitoring of Routers, NE-S level 3



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